

DRAFT

**Northeast Bridge Preservation Partnership
Deck Treatment - Overlay (> 1")**

September 17, 2012

PRODUCT NAME	PRODUCT SUPPLIER & WEB-SITE	PRIMARY BASE COMPONENT (MMA, EPOXY, etc.)	WEATHER RESTRICTIONS	DECK PREPARATION	SET-UP TIME	PATCH MAT'L COMPATABILITY	DECK AGE & CONDITION WHEN APPLIED	EXPECTED SERVICE LIFE	STATE DOT APPROVAL	ASTM/AASHTO (etc.) TEST PROCEDURES	
VESLMC Very Early Strength Latex Modified Concrete	www.rapidset.com	RS Cement SB Latex	Normal Concrete	Scarified	3 hours to open	Not Gypsum	New or Repaired	25-30 years	most	Normal Concrete	
PMCC - Polymer Modified Cement Concrete	www.rapidset.com	Low P Cement	Normal Concrete	Scarified	3 hours to open	Not Gypsum	New or Repaired	25-30 years	some	Normal Concrete	
PPC 1121	Kwik Bond Polymers. Product data sheet: http://www.kwikbondpolymers.com/product/specsheets/KBP_PDS_PPC1121EC.pdf	polyester resin mixed with aggregates, HMWM primer	Dry	clean surface, shot blast is typical	2 hour traffic return	no known incompatibility	sound concrete, any age	30+ years	Placed by special provision/specification in: AK, WA, OR, CA, NV, ID, MT, WY, UT, AZ, CO, NM, MN, MO, FL, PA, DE, NJ, NY, VT.	Meets requirements of AASTHO T34 Guide Specification for Polymer Bridge Deck Overlays, Pre-Mixed Chapter, Polyester binder section. Resin: viscosity <200 cps, tensile strength ASTM D638 >2500 psi, tensile elongation ASTM D638 35% min. Complete system (mixed with aggregates): tensile strength ASTM C307 800 psi, compressive strength ASTM C39 7000 psi, adhesion saturated surface dry >500 psi.	3/4 in. - 12 in. in single lift

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**Northeast Bridge Preservation Partnership
Deck Treatment - Sealers**

September 17, 201

PRODUCT NAME	PRODUCT SUPPLIER & WEB-SITE	PRIMARY BASE COMPONENT (MMA, EPOXY, etc.)	WEATHER RESTRICTIONS	DECK PREPARATION	SET-UP TIME	PATCH MAT'L COMPATABILITY	DECK AGE & CONDITION WHEN APPLIED	EXPECTED SERVICE LIFE	STATE DOT APPROVAL	ASTM/AASHTO (etc.) TEST PROCEDURES
KBP 204	Kwik Bond Polymers www.kwikbondpolymers.com	HMWM (High Molecular Weight Methacrylate)	Dry Surface, 40 degrees F and rising	Clean surface, shot blast is typical	2 hour traffic return	No known incompatibility	Out of wet cure as a minimum. This is a crack filler and surface penetrant that will do the most good if shrinkage cracks have developed prior to application of the HMWM.	5 - 10 years	Meets special provision/specification in many states (NY, OH, DE, CA, ID, MT, MN, NV, OK, WY, AZ). Approved list qualified in: MO, NE, NM.	Specific Gravity ASTM D1475 1.06, Viscosity ASTM D2196 <25 cps, Flash Point ASTM D3278 >180 F, Compressive Strength ASTM D695 >2000 psi (2 hr) >3000 psi (24 hr), Tensile Strength ASTM D638 >2000 psi (7 day). More available, I listed what I thought was most important.
POLY-CARB MARK-127 (crack sealer)	www.poly-carb.com	Epoxy, < 10% elongation	50 degree F, <5% Deck Moisture	Shot Blast	3-4 hr @ 77 F	No Magnesium Phosphate	Any age, substrate must be sound	3-5+ years (surface); 7-10+ (cracks)	OH	
POLY-CARB MARK-135 (crack sealer)	www.poly-carb.com	Epoxy, < 20% elongation	50 degree F, <5% Deck Moisture	Shot Blast	4-5 hr @ 77 F	No Magnesium Phosphate	Any age, substrate must be sound	3-5+ years (surface); 7-10+ (cracks)	OH, PA and NH (supplemental specs)	
Enviroseal 40	BASF Corporation www.buildingsystems.basf.com	Silane	40°-110° F; No rain or below 40° F for 12 hours after app.	Fully cured; clean; no coatings	Typical dry time is approx 4 hrs at 70° F/50% humidity. High humidity extends dry time.	Cementitious patch mat'l; fully cured; no coating/curing compd	Fully Cured; clean; sound; Dry is best, but slightly damp OK	Varies based upon exposure and substrate. 3 years or longer when properly applied	CT, FL, IL, IN, ME, MA, MI, NM, NY, OH, PA, RI, AD, TN, WV, WI	NCHRP 244 Series II-cube test; NCHRP 244 IV-Southern Climate; ASHTO T259 & T260. See Data Guide for more info.
Hydrozo 100	BASF Corporation www.buildingsystems.basf.com	Silane	40° F or higher; No rain for 4 hours; OK down to 20° F if frost free	Fully cured; clean; No coatings	Typical dry time is approx 4 hrs at 70° F/50% humidity. High humidity extends dry time.	Cementitious patch mat'l; fully cured; no coating/curing compd	Fully Cured; clean; sound; Dry is best, but slightly damp OK	Varies based upon exposure and substrate. 5-7 years typ when properly applied	IL, ME, NY, OR, PA, VT	NCHRP 244 Series II-cube test; NCHRP 244 IV-Southern Climate; See Data Guide for more info.
Degadeck CSP	BASF Corporation www.buildingsystems.basf.com	MMA	14°-104° F Substate Temp; Dry conditions	Fully cured; Clean; shotblast, gritblast, or brush-blast	Working time 10-15 min; 45-60 min cure	Cementitious patch mat'l fully cured; or MMA patch mat'l;	Fully Cured; clean; dry	Varies based upon exposure and movement in the substrate	CO, MD, MA, MN, NE, TN, VA	ASTM 638; See Data Guide for more info.
Sealate T-70MX30	Transpo Industries, www.transpo.com	High Molecular Weight Methacrylate (HMWM)	50 deg F min	shot blast recommended	5 hours min	compatible with most all patching materials	any age deck but should be in sound condition with no delaminations	excess of 10 years	ID, ME, MO, MT, NM, OR, TN, VA & WA	ASTM D2395, D1425, D1310, D93, D1644, D638, C3986, D695, D2369, C882, AASHTO T237
Sealate T-70	Transpo Industries, www.transpo.com	High Molecular Weight Methacrylate (HMWM)	50 deg F min	shot blast recommended	5 hours min	compatible with most all patching materials	any age deck but should be in sound condition with do delaminations	excess of 10 years	AL, CA, FL, MO, NM, OH, RI & WA	ASTM D2395, D1425, D1310, D93, D1644, D638, C3986, D695, D2369, C882, AASHTO T237
T-78	Transpo Industries, www.transpo.com	Methyl Methacrylate	40 deg F min	shot blast recommended	30 to 60 minutes	compatible with most all patching materials	any age deck but should be in sound condition with no delaminations	excess of 10 years	MN & MO	ASTM D2849, D1310, D1644, D638 & D3986

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Northeast Bridge Preservation Partnership
Deck Treatment - Thin Overlay (>3/8" to 1")

September 17, 2012

PRODUCT NAME	PRODUCT SUPPLIER & WEB-SITE	PRIMARY BASE COMPONENT (MMA, EPOXY, etc.)	WEATHER RESTRICTIONS	DECK PREPARATION	SET-UP TIME	PATCH MAT'L COMPATABILITY	DECK AGE & CONDITION WHEN APPLIED	EXPECTED SERVICE LIFE	STATE DOT APPROVAL	ASTM/AASHTO (etc.) TEST PROCEDURES	THICKNESS
PPC 1121	Kwik Bond Polymers. Product data sheet: http://www.kwikbondpolymers.com/product/specsheets/KBP_PDS_PPC1121EC.pdf	polyester resin mixed with aggregates, HMWM primer	Dry	clean surface, shot blast is typical	2 hour traffic return	no known incompatibility	sound concrete, any age	30+ years	Placed by special provision/specification in: AK, WA, OR, CA, NV, ID, MT, WY, UT, AZ, CO, NM, MN, MO, FL, PA, DE, NJ, NY, VT.	Meets requirements of AASTHO T34 Guide Specification for Polymer Bridge Deck Overlays, Pre-Mixed Chapter, Polyester binder section. Resin: viscosity <200 cps, tensile strength ASTM D638 >2500 psi, tensile elongation ASTM D638 35% min. Complete system (mixed with aggregates): tensile strength ASTM C307 800 psi, compressive strength ASTM C39 7000 psi, adhesion saturated surface dry >500 psi.	3/4 in to 12 in in single lift
Poly-Carb Mark-163 FLEXOGRID	www.poly-carb.com	Epoxy Urethane	50 degree F, < 5% Deck Moisture	Shot Blast	2-4 hrs-temperature dependant/coat	No Magnesium Phosphate	Any age, substrate must be sound	15+ years	PA, NH, MA, MD, ME, VT, NY, NJ, DE, RI and supplemental specs		
Poly-Carb Mark-163 LT (low temp)	www.poly-carb.com	Epoxy Urethane	30 degree F, < 5% Deck Moisture	Shot Blast	2-4 hrs-temperature dependant/coat	No Magnesium Phosphate	Any age, substrate must be sound	10+ years	supplemental specs		
Poly-Carb Mark-154	www.poly-carb.com	Epoxy	50 degree F, < 5% Deck Moisture	Shot Blast	1-3 hrs-temperature dependant/coat	No Magnesium Phosphate	Any age, substrate must be sound	8-10+ years	PA, NY and supplemental specs		
Poly-Carb Mark-155 UREGRID	www.poly-carb.com	Polyurea	40 degree F, < 5% Deck Moisture	Shot Blast	2-4 hrs-temperature dependant (multi-	No Magnesium Phosphate	Any age, substrate must be sound	5+ years	supplemental specs	C836	

DRAFT

Northeast Bridge Preservation Partnership
Deck Treatment - Ultra Thin Overlay (<3/8")

PRODUCT NAME	PRODUCT SUPPLIER & WEB-SITE	PRIMARY BASE COMPONENT (MMA, EPOXY, etc.)	WEATHER RESTRICTIONS	DECK PREPARATION	SET-UP TIME	PATCH MAT'L COMPATABILITY	DECK AGE & CONDITION WHEN APPLIED	EXPECTED SERVICE LIFE	STATE DOT APPROVAL	ASTM/AASHTO (etc.) TEST PROCEDURES	THICKNESS
SSI ReDeck	highway@ssicm.com	urethane-epoxy	60F-85F	shot blast day of intallation	1st coarse deck temp -80F -1.5 hr 2nd coarse deck temp -80F -3 hr	SSI Flexpatch	new concrete deck	10 years	NYSDOT		
1/4" -3/8	www.csbehler.com	1 to ratio					28 days, old deck must be in decent shape				
PPC MLS	Kwik Bond Polymers. Product data sheet: http://www.kwikbondpolymers.com/product/specsheets/KBP_PD5_PPCmis.pdf	Polyester resin and broadcast aggregate (2 layer) with HMWM primer. 3/8" nominal thickness.	dry surface, 40 degrees F and rising	clean and dry, shot blast is typical	2 hours per layer from 40 to 90 degrees.	No known incompatibility	Sound concrete, any age.	10 to 12 years. Longer with high performance aggregates. As with ALL multi layer broom and seed style overlays the service life is a function of aggregate abrasion resistance.	Approved in NV, placed in other states under special provision/specification.	Meets all requirements of AASHTO T34 Guide Specification for Polymer Bridge Deck Overlays, Multi Layer Chapter, Polyester Binder section. Resin: viscosity 500-1000 cps, tensile strength ASTM D638 2500 psi, tensile elongation ASTM D638 >40%. Complete system (with aggregates): compressive strength ASTM C579 >5000 psi, adhesive strength ACI 503R >250 psi, permibility to chloride ion AASHTO T277 <100 coulombs.	3/4 inch nominal
Poly-Carb Mark-163 FLEXOGRID	www.poly-carb.com	Epoxy Urethane	50 degree F, < 5% Deck Moisture	Shot Blast	2-4 hrs-temperature dependant/coat	No Magnesium Phosphate	Any age, substrate must be sound	15+ years	PA, NH, MA, MD, ME, VT, NY, NJ, DE, RI and supplemental specs		
Poly-Carb Mark-163 LT (low temp)	www.poly-carb.com	Epoxy Urethane	30 degree F, < 5% Deck Moisture	Shot Blast	2-4 hrs-temperature dependant/coat	No Magnesium Phosphate	Any age, substrate must be sound	10+ years	supplemental specs		
Poly-Carb Mark-154	www.poly-carb.com	Epoxy	50 degree F, < 5% Deck Moisture	Shot Blast	1-3 hrs-temperature dependant/coat	No Magnesium Phosphate	Any age, substrate must be sound	8-10+ years	PA, NY and supplemental specs		
Poly-Carb Mark-155 UREGRID	www.poly-carb.com	Polyurea	40 degree F, < 5% Deck Moisture	Shot Blast	2-4 hrs-temperature dependant (multi-system)	No Magnesium Phosphate	Any age, substrate must be sound	5+ years	supplemental specs	C836	
Poly-Carb SAFETYGRID (HFS- High Friction Surface)	www.poly-carb.com	Epoxy	50 degree F, < 5% Deck Moisture	Air or Shot Blast	1-3 hrs-temperature dependant	No Magnesium Phosphate	Any age, substrate must be sound	5+ years	supplemental specs		
Trafiguard EP35	BASF Corporation www.buildingsystems.basf.com	Epoxy	50-100° F; No rain within 12 hours	Mechanical prep to ICR1 CSP 6	15-25 min pot life; Cure time depenent upon Temp. See Data Guide.	Cementitious patch fully cured; epoxy patch with sand broadcast on surface.	Fully cured concrete; clean; dry; sound	Dependent upon service conditions	ID, LA, MO, NY, NC	ASTM C881, ASTM D695; ASTM D638; ASHTO T277; See Data Guide for more info.	
T-48 Slurry	Transpo Industries, www.transpo.com	Epoxy	50 deg f minimum	Shot blast	2-9 hours	mag phosphate not recommended	deck should be sound with no delaminations	10 - 20 years	IL, NM & TN	ASTM D2849, D1310, D1644, D695, D638, D2240, C109, D790, C307, D638, C1583-04, C531, C666, E274, AASHTO T237, ACI 503R	
T-48 Chip seal	Transpo Industries, www.transpo.com	Epoxy	50 deg f minimum	Shot blast	2-9 hours	mag phosphate not recommended	deck should be sound with no delaminations	10-20 years	SD	ASTM D2849, D1310, D1644, D695, D638, D2240, C109, D790, C307, D638, C1583-04, C531, C666, E274, AASHTO T237, ACI 503R	
T-18	Transpo Industries, www.transpo.com	Methyl Methacrylate	14 deg F minimum	Shot blast	1 hour	mag phosphate not recommended	deck should be sound with no delaminations	10-20 years	NJ	ASTM D2393, D2849, C881, D1310, D1644, D638, D695, D790, C307, C531, C1583 & D570	
E-Bond 526	Transpo Industries, www.transpo.com	Epoxy	50 deg F minimum	Shot blast	1-3 hours	mag phosphate not recommended	deck should be sound with no delaminations	10-20 years	IL, KS, MO, OK, TN & WS	ASTM D2393, C881, D638, C1583-04, C882, C579, D695, D540, AASHTO T277	